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UNITED STATES DEPARTMENT OF AGRICULTURE
Bureau of Agricultural Economics

WARTIME PRODUCTION ADJUSTMENTS ON SMALL FARMS

This report summarizes a phase of the study of Maximum Wartime Production Capacity conducted in 1943 by the Department of Agriculture in cooperation with the Land-Grant Colleges. Separate reports were prepared by BAE and State workers for each of the areas studied and can be consulted at the State Agricultural Colleges or in the Bureau of Agricultural Economics, Washington, D. C.

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Washington, D. C.
November 1944

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WARTIME PRODUCTION ADJUSTMENTS ON SMALL FARMS

Public interest in the possibilities for obtaining greater production from small farms has increased during the war. It has been suggested that, on these farms, manpower is not fully utilized and production can be increased without additional farm workers. The purpose of this report is to appraise the production possibilities of relatively small farm units with respect to the physical and human resources available to them, the way in which these resources are being used, and the means by which production on these farms can be increased.

Summary

About two-thirds of the farms in the United States, as counted by the Census of 1940, could be regarded as small farms in the sense that, as operated in 1939, they had a volume of business which was too small to employ fully the labor of a typical farm family at usual levels of efficiency. Increased farm production since 1939 probably has reduced this number to some extent.

Analysis of sample-area studies made in 27 States in 1943 reveals that farms of all sizes, including very small units, can make further increases in production.

In general, the greatest percentage increases are possible on the smaller farms, but the greatest quantitative increases will come from the larger farms. For very small farms, adjustments in the direction of increased work off the farm and a reduction in the number of such units are frequently indicated.

It is estimated that about 44 percent of further possible wartime increases in production would come from small farms. This group of farms has 39 percent of the cropland, suggesting that, although the smaller farms are somewhat more intensively operated than larger farms, production possibilities are closely related to the available cropland acreage.

Enterprises that offer particularly favorable opportunities for expansion on the smaller farms include sweetpotatoes, dry beans, Irish potatoes in noncommercial areas, peanuts at least in areas where production is not highly mechanized, commercial vegetables, poultry, dairy products, feeder pigs, and replacement dairy heifers. The areas vary, of course, in regard to suitable commodities and the extent of possible expansion.

Maximum production will not be achieved without guidance and assistance. For the larger farms relatively large increases in production per farm can be obtained by making available adequate supplies of labor, equipment, and materials. For the smaller farms, rather small individual increases can be secured from many farms. To a greater extent than on the larger farms there is need for guidance and training in

cultural practices, more assurance that adequate feed supplies will be available, and increased cooperative effort to meet special production problems such as providing peanut pickers and storage of sweetpotatoes.

If properly guided, increased production should bring the utilization of manpower on perhaps 1½ or 2 million small farms up to a reasonable standard. It would not be sufficient to reduce materially the underemployment on very small farms. To the extent that livestock producers on small farms are not assured of an adequate source of grain feeds and are not otherwise encouraged to maintain livestock production, underemployment on these farms will be aggravated.

Increased hiring of members of families on very small farms by other farmers appears to offer a better opportunity for improving the effectiveness of labor use than does increased production on the farm. However, the family labor force on such units is made up of relatively immobile types of workers, such as farm operators, their wives, and young children. The incidence of age and physical incapacity is also high on small farms. The most promising solution appears to be a vigorous local program to promote fuller use of all the labor within each community, together with some recruiting of whole families from the less productive units for year-round work or as operators on other farms.

Low output per worker in certain areas, and on the smaller farms within areas, is frequently a result of the application of labor without adequate tools or under conditions that preclude the use of machines. In either case, it is not synonymous with underemployment. Frequently, a low level of output per worker is accompanied by long hours of work and by little or no idleness. If physical conditions in the area permit the increased use of equipment which will increase the efficiency of labor, it should be made available if through it labor will be released for other work. In all areas efforts should be made to combine all the available equipment with all the available manpower so as to maximize the use of both. It is too often assumed that the farmer who has a small volume of business will have time to work on larger farms nearby. The large-scale farmer might also make his equipment available for use on the smaller farm. The exchange of labor and machine work would contribute greatly to increased efficiency of labor.

Not all of the ineffective use of labor is in the groups of smaller farms. In some cases, a low level of labor effectiveness is found on farms that hire considerable labor or that have several sharecropper families. Although the increase in production would appear to be sufficient in most cases to eliminate underemployment on the relatively large farms, it does not follow as a matter of course that it will do so. Some operators whose labor efficiency is low, if left to themselves, may hire more workers and maintain the present degree of inefficiency. Efforts should be extended to improve labor efficiency on such farms.

Small Farms

How Measured

For the purposes of this report, a small farm is considered to be one whose level of production in 1942 was insufficient to have fully employed a typical farm family at usual rates of efficiency. This is only one of many standards that might have been used in describing small farms. It was adopted because it appeared that such a classification would lend itself more readily to application in different parts of the country than would a classification in terms of acreages, or some other measure. Obviously, all farms are not operated by families that could be considered typical and, as shown later, the smaller farms tend to have a smaller family labor force than the larger farms. Full employment, as used here, represents the amount of work that is normally accomplished by a farm worker in a year in a given area under average conditions and with the usual equipment.

It should be kept in mind that some farms that have a relatively large acreage of cropland will be classified as "small farms" according to this procedure. In a highly mechanized area such as the Corn Belt, for example, farms with perhaps 80 acres of cropland and little livestock would be considered small because of the large acreage that can be handled per man with modern machines. Perhaps a farm with 20 acres of cropland in the more mountainous portions of the Appalachians would not be considered small because the labor required per acre with the tools available is large, and so the acreage that can be taken care of by a worker is limited.

To facilitate the analysis, farms are divided into four groups: Group I, farms whose production in 1942 was sufficient to employ fully the family labor of a typical farm family; Group II, farms which as operated in 1942 did not have a volume of business sufficient to employ fully a typical farm family, but which had a sufficient volume of business to make it likely that, in most cases, production could be increased to a point approaching full employment; Group III, farms whose 1942 volume of business was sufficient to indicate good opportunities for the expansion of production, but so limited that relatively few could be expected to approach full employment of a typical farm family; Group IV, farms whose production in 1942 was so low that opportunities for employing a farm family on the farm or for increasing production would be very limited.

In this report, farms in Groups II, III, and IV, are considered small farms, but Group IV contains a considerable number of units that would more properly be classified as retirement homes or rural residences.

As a part of the Production Capacity study undertaken by the Department of Agriculture and the Land-Grant Colleges in 1943, an investigation was made of the production possibilities of farms of different sizes, on the basis of the human and material resources available to them or that could be made available. This phase of the

study was undertaken in sample areas in 27 States. The State committees exercised considerable latitude in the selection of areas and in the development of the studies; as a result, in some cases the classification of farms is not strictly comparable. The statistics contained in the State reports cannot, therefore, be summarized and expanded in an exact mathematical sense. But they are sufficiently similar that general conclusions can be drawn from points on which the reports are in agreement. Table 1 indicates the areas in which the studies were located and the measures used for the classification of farms.

Figure 1 shows the location of the sample areas. In the selection of areas an attempt was made to secure representation of as many of the major type-of-farming areas in the country as possible.

How Many Small Farms

About two-thirds of the farms in the United States would be classified as small farms according to the definition used in this report (table 2). These farms, numbering about 4 million, contain about 40 percent of the cropland. 1/ Of these farms, 1½ million fall in the class of very small farms, retirement units, and rural residences, Group IV; and 1.8 million are in Group II, and are therefore of sufficient size that most of them could fully occupy the time of a typical farm family provided certain readjustments were made in organization, including the addition of labor-intensive livestock enterprises where feasible. This leaves something like 850,000 farms which are large enough to be justifiably regarded as farm units but too small to make it likely that many of them could be expanded to occupy fully the time of a farm family without the addition of more land.

The problem of expanding production on small farms centers around the 2.7 million farms in Groups II and III. So long as there is demand for increasing farm production efforts should also be made to increase production on the 1½ million small places in Group IV, but the assistance offered should be in keeping with the limited nature of production from this group. The average acreage of harvested cropland per farm in 1939 was 100 acres in Group I, 46 acres in Group II, 24 acres in Group III and 13 acres in Group IV, and it appears that the quality of cropland tends to be lower in the groups of smaller farms.

1/ These estimates are based upon unpublished data from a 2-percent sample of the 1940 Agriculture Census Returns, which furnishes information concerning the characteristics of farms classified according to value of products.

Table 1.- Measures used in grouping farms and the limits of class intervals adopted

Sample area	Groups of farms			
	I	II	III	IV
	Range in war units by groups			
Vt., Franklin County	28 and over	21-27	7-20	Less than 7
Mass., Worcester County	20 and over	14-19	6-13	Less than 6
N. J., Gloucester County	28 and over	21-27	7-20	Less than 7
Pa., Lancaster County	24 and over	16-23	8-15	Less than 8
Iowa (State)	41 and over	21-40	8-20	Less than 8
W. Va., Upshur County	11 and over	7-10	4-6	Less than 4
N. C. (State)	32 and over	16-31	8-15	Less than 8
Colo., Weld County 1/	44 and over	33-43	12-32	Less than 12
2/	41 and over	31-40	11-30	Less than 11
3/	35 and over	26-34	9-25	Less than 9
	Range in man-work units by groups			
Conn., Windham County	500 and over	150-500	50-149	Less than 50
S. Dak., Haakon County	300 and over	225-299	150-224	Less than 150
Nebr., Seward County 4/	329 and over	247-329	164-247	Less than 164
Va., Pulaski County	450 and over	300-449	150-299	Less than 150
S. C., Edgefield County	212 and over	159-211	53-158	Less than 53
Idaho, Madison County	450 and over	300-449	150-299	Less than 150
Utah, Cache County	450 and over	300-450	150-300	Less than 150
Wash., Lewis County	360 and over	240-359	120-239	Less than 120
	Range in total acres by groups			
Ill., (10 counties) 5/	240 and over	161-240	81-160	Less than 81
Okla., Okfuskee County	181 and over	100-180	50-100	Less than 50
	Range in crop acres by groups			
Ga., Bulloch County	160 and over	80-159	40-79	Less than 40
Ala., Henry County	100 and over	45-99	15-44	Less than 15
Tex., Northeast Sandy Lands Area	60 and over	40-59	20-39	Less than 20
Wash., Columbia County 6/	600 and over	250-599	125-249	Less than 125
	Other measures			
N. Y. (Chemung County)	Occupation of members of family.			
Eastern Wisconsin	A classification into family types according to age of operator, family composition, and hired labor.			
Kans., Stafford County	A classification by labor efficiency groups, measured by presence or absence of surplus labor coupled with age of operator.			
Tenn., Jefferson County) Miss., Clay Hills Area) Okla., Jackson County)	Groups are defined as on page 4, but quantitative measures used are not given.			

1/ New Raymer and Eaton communities. 2/ Roggen community. 3/ Briggsdale and Platteville communities. 4/ Man days. 5/ Numbering system reversed in report, and the four groups defined as follows: Groups I and II somewhat larger than "one-man" family-size farms because of larger families or the hire of considerable labor; Group III average family-size farms; Group IV farms which for the most part do not provide full-time employment for the operator and family although some are so intensive as to require considerable hired labor. 6/ In general, this grouping was followed, but consideration was also given to the man-months of productive labor reported for each farm.

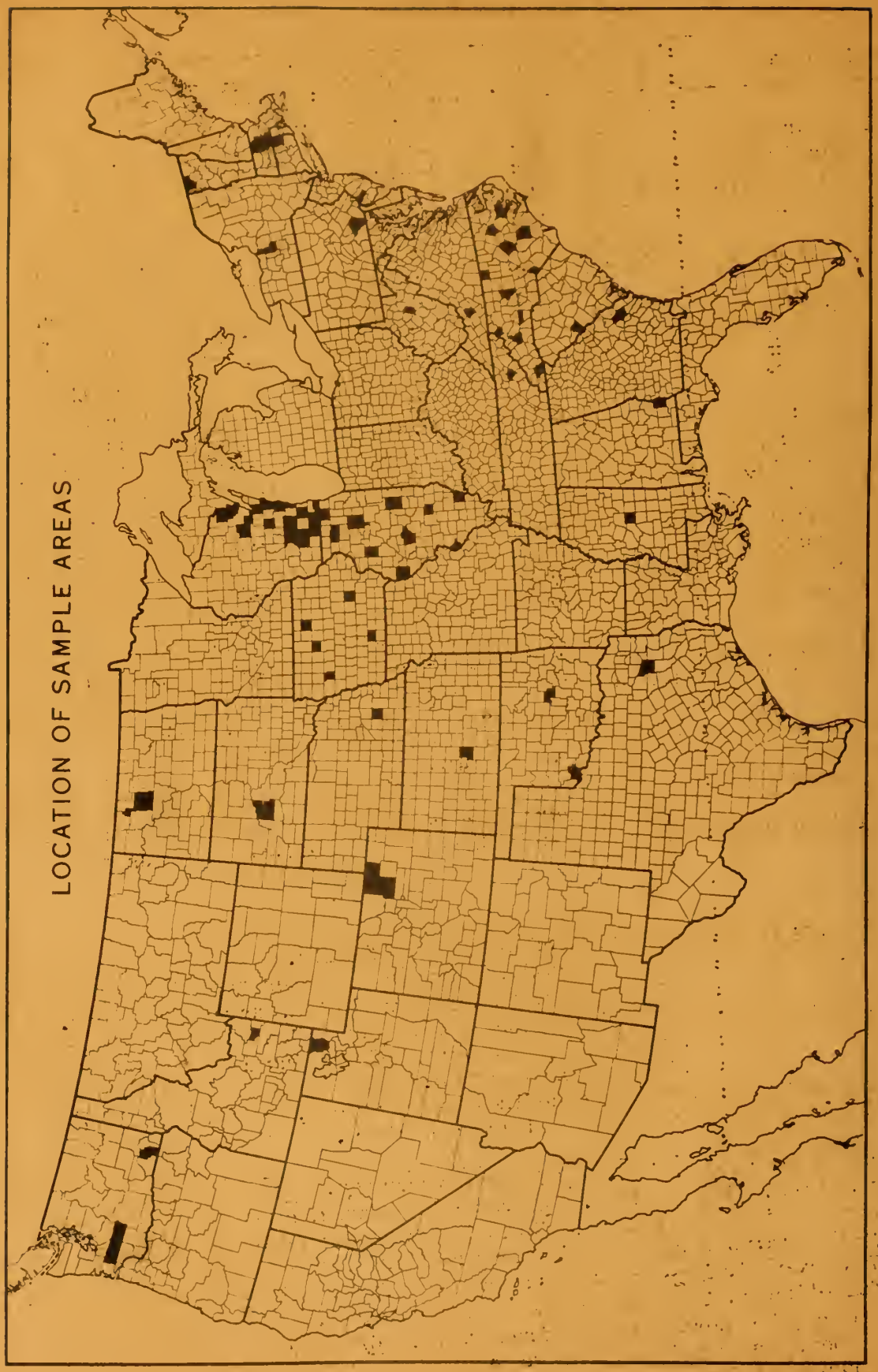
LOCATION OF SAMPLE AREAS

Table 2.- Distribution of number of farms and of acreage of cropland harvested by groups, United States 1/

Group	Total farms		Farms with most favorable opportunities for increasing production 2/		Cropland harvested		
	Number	Percent in each group	Number	Percent in each group	Acres	Percent in each group	Average per farm, acres
I	1,953,739	32.0	1,635,230	37.9	195,608,567	61.3	100.1
II	1,824,279	29.9	1,384,219	32.1	84,072,776	26.3	46.1
III	857,692	14.1	557,578	12.9	20,765,364	6.5	24.2
IV	1,461,024	24.0	741,893	17.1	18,695,932	5.9	12.8
All farms	6,096,734	100.0	4,318,920	100.0	319,142,639	100.0	52.3

1/ Estimates by the BAE, based in part on data secured in a cooperative project with the Bureau of the Census in which a 2-percent sample of the 1940 Agriculture Census Returns were used.

2/ Farms with operators under 65 years of age, and on which operators did not work off the farms as much as 100 days in 1939.

The Resources of Small Farms

There is wide variation between areas in the proportion of farms falling in the different size groups, and in the distribution of land, as shown in table 3 for selected sample areas. For the area shown, from one-fourth to two-thirds of the farm land, and a somewhat smaller proportion of the cropland is contained by the samll farms.

Land

The proportion of farm land, and also the proportion of cropland, represented by small farms is considerably less than the proportion of farms. Small farms, particularly those in Group IV, are limited not only in quantity of land but in quality as well. In Upshur County, W. Va., yields of corn and potatoes on Group IV farms were found to be 20 and 30 percent lower, respectively, than the average of all farms. In Columbia County, Wash., "small farms.....are located on cut-over land having inferior soils."

Table 3.- Distribution of farms, land in farms and cropland for selected sample areas by groups of farms, 1942

Sample area and item	Group I	Group II	Group III	Group IV
	Percent	Percent	Percent	Percent
Windham County, Conn.				
(A New England part-time farming area)				
Percent of farms	44	16	20	20
Percent of land	66	12	10	12
Percent of cropland	73	9	10	8
Lancaster County, Pa.				
(A dairy area)				
Percent of farms	56	13	20	11
Percent of land	74	12	12	2
Percent of cropland	76	10	12	2
Haakon County, S. Dak.				
(A range-livestock area)				
Percent of farms	33	18	20	29
Percent of land	66	15	11	8
Percent of cropland	68	15	10	7
Jefferson County, Tenn.				
(A general farming area)				
Percent of farms	11	22	38	29
Percent of land	32	34	26	8
Percent of cropland	38	35	21	6
Clay Hills Area, Miss.				
(A cotton area)				
Percent of farms	20	30	35	15
Percent of land	49	31	16	4
Percent of cropland	38	33	22	7
Madison County, Idaho				
(An irrigated special crop area)				
Percent of farms	39	25	28	8
Percent of land	66	21	12	1
Percent of cropland	67	19	12	2

In Pulaski County, Va., nearly three-fourths of the farms in Group IV were on land considered "submarginal for agriculture," 98 percent of the farms on "submarginal" land were in Groups III and IV. Conversely, none of the farms in Group IV were on the "better grades of land which in its present condition and use will support a prosperous agriculture." More than four-fifths of the farms on the better grades of land were in Group I. In the "open-country" sections of Chemung County, N. Y.—a part-time farming locality—almost two-thirds of the families on the smallest farms had "little or no land suitable for farming." In Jefferson County, Tenn., more than nine-tenths of the land in Group IV is "generally best suited to pasture or forest," whereas in Group I more than 37 percent of the land is "fair to excellent cropland." In Edgefield County, S. C., cropland in the groups of small farms was from 10 to 20 percent less productive than in Group I in terms of yields that could be obtained with the application of lime and fertilizer.

The same tendency exists to some extent on farms that have irrigated land. In Cache County, Utah, only 23 percent of the cropland on the smallest farms was irrigated compared with 53 percent or more for the other groups. In addition, "general observation and experience indicate that the smaller farms have the least favorable soil and moisture conditions." In Weld County, Colo., however, "there does not appear to be any marked difference in the quality of the soil or in the adequacy of irrigation water between the groups of farms." In Lewis County, Wash., "there was little to indicate any appreciable difference in the location of the first three groups of farms with respect to quality of soil and distance to markets. There was some indication, however, that Group IV farms were less favorably located both with respect to distance from towns and to quality of soil."

Location near nonfarm employment appears to be of considerable importance to Group IV farms in many areas. In several instances it was reported that farms in this group are likely to be located near urban centers and on improved roads.

Machinery and Buildings

Naturally the larger farms tend to have more, larger, and better buildings and are better equipped with power and machinery than the small farms. Evidently small farms are not adequately equipped with even the simpler equipment and tools and the operators often substitute man labor which is relatively more abundant. Hence, lack of proper equipment is partly responsible for inefficient use of labor on the small farms. It would be difficult, of course, to use labor-saving machinery on many of them where fields are small or steeply rolling. Frequently farmers who have only a small business cannot afford the more expensive pieces of machinery.

Several reports suggested that the expensive machines needed to produce some crops should be made available for use on small farms by one means or another. Peanut pickers are an example. However, it may be significant that although nearly all the reports commented upon the lack of common types of labor-saving machinery on small farms, none suggested their addition as a means of expanding production. There are other and more important limitations to production on these farms.

The feasibility of expanding livestock numbers on a particular group of farms does not always depend upon the adequacy of present farm buildings. Frequently the availability of other factors of production, feed for instance, is more important. In a study in a Tennessee dairy area, for example, the suggested increase in numbers of dairy cows on farms in Group I was 27 percent although existing shelter would accommodate an increase of only 2 percent. No increase in dairy cows was suggested on farms in Group III, although barn space was available for an additional number of dairy cows equal to 15 percent of 1942 numbers.

Manpower Resources

The regular farm-labor force per farm is greater on the larger farms, and decreases as the volume of farm business goes down. For Groups III and IV, operators and members of their families make up nearly all the regular labor force; and the effective family labor force in these two groups is smaller than average because operators tend to be older or more often incapacitated, and fewer grown sons have remained on the farms. This characteristic must be kept in mind when considering the extent to which workers can be released from the lower producing farms for work elsewhere.

Table 4 gives the regular labor force available for farm work on farms classified according to volume of business in 1942. The labor force was converted to man equivalents and expressed in terms of an able-bodied man. The conversion factors used for different types of workers varied by States, but probably reflect the effectiveness of various types of labor reasonably well in all cases 2/. The labor force includes the members of the family who work on the farm, regular hired labor, and croppers. Time spent off the farm by members of the farm family was deducted, and seasonal and occasional hired labor, including contract workers, were not counted in the labor force.

In addition to the regular force, many seasonal workers are hired in some areas. Here again the number of workers is much greater on the larger farms, but on relatively small farms it is necessary to hire some for peak loads. In Gloucester County, N. J., for example, the "peak full-time seasonal workers per farm" was 8.8 on farms in Group I, 4.9 in Group II, 3.0 in Group III, and 0.1 in Group IV, with an average on all farms of 4.7 workers. Large numbers of seasonal workers are used in this area on fruit and vegetable enterprises.

2/ The man-equivalent conversion ratios by age and sex, as used in the North Carolina report, illustrate the general manner in which workers were rated:

Age	Man equivalents	
	Male	Female
Under 14	.2	.1
14-17	.4	.2
18-44	1.0	.3
45-64	.8	.2
65-up	.3	.1

Table 4.- Regular labor force available for farm work on farms classified by size of business, 1942 1/

State	Area covered by sample	Man equivalents per farm			
		Group I	Group II	Group III	Group IV
		Number	Number	Number	Number
Vermont	Franklin County	1.9	1.3	1.0	.3
Connecticut	Windham County	2.1	.9	.5	.1
New Jersey	Gloucester County	3.1	1.4	1.3	.5
Pennsylvania	Lancaster County	2.1	1.3	1.3	.6
Illinois	10 counties	2.2	1.8	1.6	1.3
South Dakota 2/	Haakon County	1.8	1.5	1.2	.8
Virginia	Pulaski County	3.6	2.0	1.4	1.0
West Virginia	Upshur County	1.1	.9	.8	.4
Tennessee	Jefferson County	2.8	2.2	1.6	1.0
North Carolina	12 counties	6.3	2.5	1.9	1.7
Georgia	Bulloch County	9.5	4.5	2.6	2.0
Alabama	Henry County	5.4	1.7	1.2	---
Oklahoma 2/	Okfuskee County	2.2	2.0	1.7	1.5
Texas	Smith County	3.2	2.0	1.7	1.6
Colorado	Weld County	1.9	1.7	1.5	1.1
Washington	(Columbia County	1.8	1.1	1.3	1.0
	(Lewis County	1.8	1.2	1.0	.6

1/ Does not include seasonal workers hired for less than 3 months; sharecroppers are included.
2/ Includes family labor only.

By and large, the primary source of farm labor is the farm family—the farmer, his wife, and their children. Aside from the very large farms, which are rather few, year-round or regular hired men are employed for the most part to supplement the labor force on farms that do not have a full complement of family workers. Table 5 indicates the composition of the regular labor force by size groups for seven of the sample areas. The importance of the farmer and the family in getting the farm work done is evident. As the size of business decreases, the family labor becomes a greater part of the farm force.

But family labor is also very important on the large farms. In areas where there are sharecroppers, they reduce the proportion of the work done by the farm family especially on the larger farms. Data from 14 counties in eastern Wisconsin indicate the kinds of farms that hire labor. In this area only 14 percent of the farms have a regular hired man for 3 months or more. About 86 percent of the operators hiring labor are farmers with no sons at home 16 years old or over. Eleven percent have male operators and sons who are over 15 years old. The other 3 percent are widows. This situation is probably typical of most areas where farms tend to be of family size or smaller.

Table 5.- Percentage composition of the regular farm labor force on farms classified by size of business, selected areas, 1942

State	Area covered by sample	Group I			Group II			Group III			Group IV		
		Family	Hired	Cropper	Family	Hired	Cropper	Family	Hired	Cropper	Family	Hired	Cropper
		Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Vt.	Franklin Co.	77	23	0	100	0	0	92	8	0	100	0	0
N. J.	Gloucester Co.	56	44	0	90	10	0	84	16	0	84	16	0
Ill.	10 counties	77	23	0	89	11	0	95	5	0	98	2	0
Tenn.	Jefferson Co.	51	3	46	76	5	19	87	2	11	98	0	2
Tex.	Smith Co.	66	10	24	94	0	6	92	5	3	98	0	2
Wash.	Columbia Co.	73	27	0	91	9	0	96	4	0	98	2	0
Wash.	Lewis Co.	96	4	0	97	3	0	100	0	0	100	0	0

Operators on the larger farms are younger than those on the smaller farms in most sample areas for which this information is available (table 6). The average age of operators is greatest on either Group III or IV farms in seven of the eight sample areas listed. Many of the Group IV farms are retirement or semiretirement units which accounts for the greater age of this group of operators. On the other hand, this group probably includes a few young operators who are just getting started. In some part-time farming localities, operators on very small units are likely to be younger than the average.

Many reports discussed age and physical condition of the operator even though they did not give the average age of operators by groups. In Cache County, Utah, "the average operator (on the small farm) is older, more of them have reached the age of semiretirement, more are partially crippled or incapacitated for heavy labor, and more of the farms are operated entirely by women or children." In Illinois, "part of the small production per worker on small farms is probably due to the advanced age of the operator or to the health of the operator or his family." In Jefferson County, Tenn., 30 percent of the Group III farms were "farms on which the operators were too old for nonfarm employment" and about one-fourth of the Group IV farms were "farms occupied by aged or disabled persons."

Table 6.- Average age of farm operators on farms classified by size of business, selected areas, 1943

State	Area covered by sample	Average age of operators				
		Group I	Group II	Group III	Group IV	All farms
		Years	Years	Years	Years	Years
Vt. 1/	Franklin County	48	48	49	64	49
Conn. 2/	Windham County	49	50	60	57	53
N. J.	Gloucester County	51	49	55	48	50
Pa.	Lancaster County	43	52	55	58	48
S. Dak.	Haakon County	51	51	51	58	53
Ga.	Bulloch County	54	51	53	51	52
Wash.	(Columbia County	50	48	55	53	51
	(Lewis County	47	50	53	53	52

1/ Does not include 7 female operators.
2/ Does not include 5 female operators.

Labor Utilization

Although the regular labor force available for farm work is greatest on the relatively large farms and declines through each of the other groups with the decline in volume of business (table 4), this difference is more than offset by the greater quantity of work to be done on the larger farms in caring for crops and livestock. The volume of work to be done per man equivalent available is greatest on the large farms and declines through the other size groups. It should be remembered that much of the work on

the smaller farms is done without labor-saving equipment. Furthermore, these estimates exclude upkeep work and take no account of the fact that more time is required for farm operations on the small, irregular fields on the smaller farms.

Even when allowance is made for differences in age and physical condition of the workers, farms with a small volume of business apparently used labor less effectively. But the underutilization of labor is not confined to small farms and no group has reached the maximum of labor efficiency.

A comparison of the quantity of work accomplished per man equivalent on farms in the different size-groups indicates roughly the effectiveness with which labor is used (table 7). The low number of productive man-work units 3/ per man equivalent in some areas and on some groups of farms should not be construed to mean that there is a correspondingly high degree of unemployment or idleness. The study of Upshur County, W. Va., for example, indicates that, although the average number of work units per man equivalent is only 90, "this area must now be considered as one in which labor resources are fully employed". Farm workers in this area can be expected to accomplish only a relatively low number of man-work units because of the small and irregularly shaped fields, the extensive use of hand labor, and other disadvantages.

An approach to the better utilization of labor on small farms involves two questions. On farms where labor efficiency is low, does the production obtained justify the high input of labor, and is there an alternative use for the kinds of labor involved at the seasons when it would be available? Can the effectiveness of labor use on such farms be increased by improvements in methods and equipment and would the labor thus released be available for needed work elsewhere?

No general answers can be given to these questions that would apply in all parts of the country. However, the total sum of man hours involved in ineffective production on small farms appears to be so large that it would seem well worth while to examine, area by area, the possibilities for improving efficiency and for the release of labor for other activities.

Enough has been said about the composition of the labor force on small farms, particularly those in Groups III and IV—the tendency for operators to be older and physically handicapped, and the relatively immobile types of family labor represented--to indicate that small farms constitute a limited source of labor for industry or farms in other areas. The best possibilities lie in the direction of increasing the work done on other farms in the same community and some recruitment of entire families from the less productive farms for work elsewhere.

Such a problem should be approached on a local or community basis, with regional or State guidance with respect to types of workers needed and the seasons when they can be used.

3/ A productive man-work unit represents the amount of productive work accomplished by one able-bodied man in a 10-hour work day.

Table 7.- Productive man-work units 1/ per man equivalent 2/ on farms classified by size of business, 1942

State	Area	Man-work units per man equivalent				
		Group I	Group II	Group III	Group IV	All farms
		Number	Number	Number	Number	Number
Vt.	Franklin Co.	366	278	207	165	336
Conn.	Windham Co.	258	226	204	200	231
N. J.	Gloucester Co.	316	253	160	60	270
Pa.	Lancaster Co.	298	230	142	94	260
Ill.	10 sample counties	299	248	218	149	231
S. Dak.	Haakon Co.	271	179	161	110	217
Va.	Pulaski Co.	230	211	167	116	198
W. Va.	Upshur Co.	120	90	81	70	90
Tenn.	Jefferson Co.	228	134	87	70	123
N. C.	12 sample counties	193	164	116	51	142
Ga.	Bulloch Co.	167	143	132	89	136
Ala.	Henry Co.	250	256	175	---	243
Okla.	(Jackson Co.	299	184	131	69	202
	(Okfuskee Co.	266	156	133	86	153
Wash.	(Columbia Co.	257	193	108	49	180
	(Lewis Co.	352	222	186	75	206

1/ Amount of productive work accomplished by one able-bodied man in a 10-hour day.
2/ See footnote 2, page 10.

Distribution of 1942 Production

The relative distribution of the total acreage of individual crops and the numbers of livestock on farms in the different groups, when compared with the amount of cropland in each, gives an indication of the intensity of operation of farms of different sizes and serves to point out that some enterprises tend to be concentrated in certain groups of farms.

The more extensive crops, such as corn, seem to be distributed among groups in about the same way as is cropland. Farms of larger volume generally have a higher proportion of cropland in soybeans than do smaller farms. There is a tendency for sweetpotatoes, and to a lesser extent vegetables grown for sale and Irish potatoes, to occupy a larger proportion of cropland on the smaller businesses than on larger units. For the vegetables grown for sale and for potatoes the tendency toward concentration on smaller units is limited to areas which are not highly commercialized. The three enterprises mentioned contribute to home consumption, and this may be fully as important in explaining the greater concentration on smaller farms as any effort to increase volume of business through intensification. The acreage of peanuts is distributed among groups approximately in the same proportion as is cropland.

Efforts to build up the size of the smaller farm businesses and to increase home food supplies are apparent with respect to laying hens and brood sows. In practically all areas the number of hens and sows per acre of cropland is greater on the smaller farms than on the larger. Milk cow numbers tend to be somewhat concentrated on the smaller farms, but do not deviate greatly from the distribution of cropland.

Aside from a few sample counties in predominantly subsistence areas, where both the share of cropland and the share of production were rather high in Group IV, farms in this group contributed a very small portion of the production of any commodity.

A comparison by groups of farms of aggregate volume of production, as measured by war units 4/ with the distribution of cropland indicates that farms in Groups III and IV are little if any more intensively operated than the larger farms. Farms in Group II appear in most sample counties to be slightly more intensive than farms in other groups.

It would seem that farms with a volume of business too small to employ fully a typical farm family would tend to be more intensively operated than larger units. This does not appear to be the case except to a very minor degree. This is partly because many families on small farms, particularly on the very small places, are not up to the average with respect to size and physical capacity of the family labor force. Also, the frequent references in the State reports to the lower quality of soil and inadequacy of buildings and equipment and the suggestion in the Tennessee report that heavier per acre applications of fertilizer are needed on the smaller farms, have a bearing upon the question of the ease with which production could be intensified. If we were dealing with size of farm in terms of acres per farm there probably would generally be greater intensity of operation on smaller than on larger farms, particularly in type-of-farming areas where livestock enterprises were important. The classification of farms in the Illinois report was based upon acres per farm, and the smaller farms tended to have a greater share of total war units in comparison with their share of total cropland than the larger farms indicating that they were more intensively operated (table 8).

Where acreage of cropland per farm is the only limitation, farmers attempt to overcome it by developing more intensive systems of farming. This report, however, deals with groups of farms that have other limitations of resources. In fact, although crop acreage generally appears to be limited in the lower groups it is not always so, and in some areas considerable idle cropland is reported on the small farms. It would perhaps be more appropriate to refer to the farms in the lower groups as low-producing farms rather than as small farms. The question now to be considered is whether or not these low-producing farms can be encouraged to expand production in wartime and the means by which it can be done.

4/ A war unit is a measure developed by Selective Service which permits enterprises to be rated primarily in accordance with the amount of labor required to produce them.

Table 8.- Distribution of cropland and total war units, 10 Illinois counties, 1942

Farms	Cropland	War units
	Percent	Percent
Group I	33.0	26.9
Group II	26.9	25.9
Group III	32.7	37.0
Group IV	7.4	10.2
All farms	100.0	100.0

Production Adjustments from 1942 to 1943

Changes in production from 1942 to 1943 were reported for the sample areas in seven States. In most areas net increases in production were indicated. The aggregate increase for all farms in each group was greater for the groups of larger than for the groups of smaller farms, with few exceptions. On a percentage basis, however, the change was usually greater on the smaller farms, as the following examples will illustrate. In the irrigated sections of Weld County, Colo., the increase in potato acreage was 9 percent on farms in Group I and 33 percent in Group III. The acreage increases for these two groups were, respectively, 1,513 acres, and 999 acres.

In a cotton area of the Lower Atlantic Coastal Plain, Bulloch County, Ga., the peanut acreage was increased about 47 percent, or 3,641 acres in Group I, and about 60 percent or 1,365 acres in Group IV.

The average increases in acreage of corn for the sample farms in 10 Illinois counties, each in a different type of farming area, were 14 percent for farms in Group I and 17 percent in Group IV. In terms of acreage, this represented an increase of 5,003 acres for Group I and only 1,328 acres for Group IV.

In Upshur County, W. Va., representing a general, self-sufficient type of farming, the number of beef cows was increased 9 percent on Group I farms, and 18 percent on Group IV, but the actual increase amounted to 238 animals in Group I compared with 37 in Group IV.

Possibilities for Expansion of Selected Commodities

Because of the differences in resources available to the various groups of farms, the opportunities for expanding the production of a given commodity are also different. The situation with respect to a few selected commodities is here discussed.

Sweetpotatoes

The seven area reports that considered production possibilities for sweetpotatoes were in agreement that the best opportunities for expansion were on the smaller farms. Reasons given included the greater availability of family labor, the ease with which the crop could be grown on small acreages, and the fact that the crop would not require additional machinery on many farms. The report on Jackson County, Okla., suggested that crops more extensive than sweetpotatoes should be encouraged on the larger farms in order to utilize the cropland available to them.

An investigation in the northeast sandy lands area of Texas indicated that curing and storage of sweetpotatoes would raise some problems, but it does not appear that the storage problem would be any more acute on small than on large farms, particularly if central storage houses could be provided to serve a number of farms.

Peanuts

The six studies that examined the possible increases in peanut acreage were in general agreement that the greater share of increases would come from the larger farms. In the Texas report it was suggested that the acreage of peanuts on large farms be expanded to the capacity of their land resources and that modern machinery be made available to them. It is said that 30 or more acres per farm are needed in this area to utilize effectively a set of modern machinery. Smaller farms can expand production on the basis of hiring certain harvesting operations, which would be performed by the well-equipped larger operators. This represents the situation in areas that are well adapted to large-scale operation. In the eastern areas, expanding peanut acreage on the smaller farms presents less difficulty, but it was considered that it frequently would be difficult to obtain the services of a picker for small acreages unless the crop could be hauled to the machine.

Dry Beans

The only major area for which production of dry beans was discussed was Weld County, Colo. In the nonirrigated parts of this county, it was felt that increases in dry beans could be most easily obtained on the farms in Groups II and III, because they were generally more diversified and had the equipment for and experience in handling beans. In the irrigated sections relatively large increases would be desirable on farms in Group II because of the need in this group for a crop requiring less labor than sugar beets or potatoes. This situation arises from the fact that the sugar-beet acreage per farm in this group is

greater than can be handled by the family labor, but is not sufficient to attract a beet-worker family since the earnings of such families are dependent upon the acreage handled. The suggested increase in bean acreage is in line with adjustments made on farms in this group in 1943.

Wheat

Most of the increase in wheat acreage apparently should come from relatively large farms, because of the availability of land and the opportunities for large-scale production.

Irish Potatoes

For the one commercial area where the possibilities of this crop were discussed—Weld County, Colo.—it was suggested that the best opportunities for increase are found on the larger farms because the equipment required for handling the crop is available and because reduction would be feasible in irrigated wheat and in alfalfa acreages on farms in this group. For four noncommercial and subsistence areas the better opportunities for expansion were on farms in the small-size groups, because of the small acreages of land required per farm, the availability of labor, and the small amount of machinery required for the crop in such areas. Potatoes are also an attractive source of cash income for small farms in many noncommercial areas.

Commercial Vegetables

The reports generally indicated that expansion of commercial-vegetable production was one of the more promising ways of increasing production in Groups III and IV, because of the small acreage involved per farm, the high labor requirements, and the possibility of handling the crop without elaborate machinery. It was mentioned in some of the reports that the expansion of acreages on the smaller farms should be accompanied by careful instruction of the growers in cultural methods and intensive efforts to interest them in growing vegetable crops. Location of the smaller farms with respect to markets did not seem to be less favorable than for larger farms.

Livestock

The question of possible adjustments in livestock production among groups of farms is closely associated with the distribution of the acreages of feed crops and with the extent to which it is desirable to make feed available to the lower producing farms in order to utilize more fully their manpower resources or even to maintain existing systems of farming which depend upon purchased feed. The number of roughage-consuming animals is rather closely associated with the roughage-producing capacity of the farm, whereas the number of grain-consuming animals is frequently increased beyond the carrying capacity of the farm through the purchase of grain. This is a common method of expanding the size of business on small farms.

A comparison of the acreage of roughage per roughage-consuming animal unit in the sample counties for which such a comparison could be made shows very little difference between groups of farms, at least so far as acreage is concerned.

A similar comparison of acreages of feed grains per grain-consuming animal unit indicates that generally there is a smaller acreage of feed grain per animal unit on the smaller farms. Livestock are probably fed somewhat less heavily on the smaller farms than on larger farms, but it appears from the reports that crop production per acre is lower. Therefore, it can be concluded that their feed resources in relation to feed requirements are less.

The Tennessee report furnished information concerning the purchase of feed which indicates that those groups of farms which had the lowest acreage of grain or roughage, or both, per animal unit, bought the largest quantities of feed per animal unit in 1942.

In a few cases, changes in the cropping systems on small farms can be made to increase feed production, but generally increased livestock production on the smaller farms will mean buying additional feed.

Most of the area reports recognized that increasing livestock on the smaller farms would be one means of increasing the effectiveness of labor on these farms, but with the limited feed supplies in prospect, suggested adjustments in livestock numbers do not go very far to eliminate underemployment. It is possible that, if more attention were given to shifts in production between groups of farms rather than to increases for all farms, some further possibilities could be developed for increasing livestock production on the smaller farms. Enterprises that would lend themselves particularly well to this type of adjustment would include feeder pigs, milk cows, and laying hens. In some localities, with adequate pasture but with unfavorable market outlets for dairy products, the raising of replacement dairy heifers might offer attractive possibilities. It does not appear that changes in the ratio between feed and livestock prices will encourage adjustments of this kind for although a relatively higher price for feed grain might make more feed available to the purchaser, it would discourage the feeder. Obviously, uncertainties with respect to the price of feed or its availability will discourage the livestock producer who is dependent upon purchased feed to a greater extent than other producers.

Some of the studies, particularly in the Southern States, raised questions relative to the utilization of increased livestock production on the smaller farms. In the report for the clay-hills section of Mississippi it was stated that some of the better one-mule cotton farms could expand dairy production without adding to their acreage of cropland; but although one-third of such farms have 1 milk cow and 57 percent have 2 cows or more, only 3 percent are selling any dairy products. Apparently increased production on such farms would be mainly for home use. A study in the northern dairy section of Vermont indicates that nearly all producers who have 20 cows or more can meet the license requirements for the sale of whole milk. A lower percentage of the smaller units have met these requirements, and others can do so only at considerable expense, if at all.

Share of Total Expansion in Production

The extent of change from 1942 production to wartime maximum levels was estimated for 25 areas on the basis of war units (table 9). 5/ The total changes for the four groups in these areas ranged from a decrease of 5 percent for Lewis County, Wash., to an increase of 43 percent in the northeast sandy land section of Texas. The net decrease in Lewis County, Wash., was due chiefly to a decrease in poultry numbers and to a shift from canning peas to dry peas.

In most of the sample areas possible increases are indicated in each group of farms but occasionally maximum production for an area calls for a decrease from the 1942 level of production for one or more of the groups. These decreases usually appear in Group IV.

In most of the sample areas the estimated percentage increase is larger on farms in Groups III or IV than for the other groups but, with few exceptions, the actual quantity increase is greater on the larger farms (table 10).

A rough measure of the approximate share of production increases that would come from each group of farms can be obtained by using the data from the sample studies in conjunction with the estimates prepared by the Bureau of Agricultural Economics from special census tabulations. (See page 4.) From table 2, page 7, it appears that one-third of the farms and 60 percent of the cropland are in the group of relatively large farms. One-fourth of the farms, but only 6 percent of the cropland, are in Group IV. The average acreage of cropland per farm is about 100 acres in the highest group and 13 acres in the lowest.

When farms operated by aged persons and by operators who spend considerable time in work off the farm are subtracted from the total, a higher proportion of the farms remaining are in Groups II and III. The farms operated by younger men, and by operators who devote most of their time to work on the farms, would seem to afford the most favorable opportunities for increasing production. As a rough measure of the share of increased production, from 1942 to maximum, that would come from the different groups, the observed percentage increases in volume of production 6/ as shown by the sample studies were applied to the acreage of cropland in each group. This calculation indicates that about 56 percent of the increased production would be expected to come from the relatively large farms, about 30 percent from farms in Group II, 8 percent from farms in Group III, and 6 percent from the very small units in Group IV.

It should be pointed out that the contribution to marketable supplies of food from very small farms would be smaller than indicated above because a considerable part of the increase would be used at home.

5/ For definition of war unit, see footnote 4, page 16.

6/ As measured by war units.

Table 9.- Changes indicated in war units from 1942 to obtain maximum wartime production capacity by groups of farms in selected sample areas

Area	Group I		Group II		Group III		Group IV		All groups	
	1942	Change to maximum	1942	Change to maximum	1942	Change to maximum	1942	Change to maximum	1942	Change to maximum
	War units	Percent	War units	Percent	War units	Percent	War units	Percent	War units	Percent
Alabama - Henry Co.	39,864	14	17,880	13	4,865	17	(No report)		62,609	14
Colorado - Weld Co. 1/	57,737	18	9,860	41	11,878	21	3,474	- 14	32,949	20
Connecticut - Windham Co. 5/	1,188	9	186	12	94	31	14	179	1,482	13
Georgia - Bulloch Co.	18,206	- 5	16,876	2	17,722	9	8,202	16	61,006	4
Idaho - Madison Co.	8,344	12	2,872	3	2,027	7	279	4	13,522	9
Illinois - ten counties	19,795	2/12	19,001	2/11	27,220	2/12	7,513	2/16	73,529	2/12
Kansas - Stafford Co. 5/	2,117	4	206	22	859	7	73	7	3,255	4
Massachusetts - Worcester Co. 5/	1,871	12	119	24	105	70	(No report)		2,095	15
Mississippi - Clay Hills area 3/	134,944	12	125,351	32	94,578	45	26,980	18	381,853	27
New Jersey - Gloucester Co.	33,327	5	4,196	7	3,884	10	752	116	42,159	8
North Carolina - all areas 3/ 5/	4,036	22	3,151	29	1,679	40	977	38	9,843	29
North Dakota - Ward Co. 5/	2,613	23	199	25	510	35	193	54	3,515	27
Oklahoma - Okfuskee Co.	17,581	27	21,726	25	13,936	13	5,205	12	58,448	22
Jackson Co.	59,407	6	29,166	8	11,805	6	1,663	10	102,041	6
Pennsylvania - Lancaster Co.	162,986	- 4	19,642	5	17,530	12	2,965	- 6	203,123	- 2
South Carolina - Edgefield Co.	30,695	- 5	3,016	2	2,774	- 6	122	30	36,607	- 5
South Dakota - Haakon Co.	9,832	11	2,188	20	1,591	28	792	52	14,403	16
Tennessee - Jefferson Co.	7,463	16	7,163	26	6,173	4	2,464	4	23,263	15
Texas - Northeast Sandy Land 5/	619	59	167	34	176	14	66	- 9	1,028	43
Utah - Cache Co.	24,170	9	9,014	11	6,222	12	1,271	19	40,677	10
Vermont - Franklin Co.	32,910	11	3,508	13	2,062	42	449	25	38,929	13
Virginia - Pulaski Co. 5/	4/ 2,200	14	4/ 639	8	4/ 804	3	4/ 266	4	4/ 3,909	10
Washington - Lewis Co.	15,639	- 7	7,624	- 4	6,444	- 4	4,489	- 2	34,196	- 5
Columbia Co.	5,909	18	3,334	10	1,382	7	381	- 6	11,006	14
West Virginia - Upshur Co.	3,759	20	1,977	29	1,233	47	2,551	20	9,520	25

1/ Sugar beets not included. 2/ Change to 1943 which is assumed to be maximum.
3/ Cotton not included. 4/ As of 1940. 5/ Sample farms only.

Table 10.- Participation of the several groups of farms in selected areas in the indicated changes in war units from 1942 to obtain maximum wartime production capacity

Area	Group I		Group II		Group III		Group IV		All groups	
	Farms 1942	Change to maximum: War units	Farms 1942	Change to maximum: War units	Farms 1942	Change to maximum: War units	Farms 1942	Change to maximum: War units	Farms 1942	Change to maximum War units
	Number		Number		Number		Number		Number	
Alabama - Henry Co.	800	5,764	340	2,230	240	840	70	(No report)	1,450	8,884
Colorado - Weld Co. 1/	2,000	10,623	450	3,997	900	2,460	750	- 491	4,100	16,589
Connecticut - Windham Co. 5/	41	110	15	22	18	29	18	25	92	186
Georgia - Bulloch Co.	182	- 875	376	379	706	1,611	650	1,303	1,914	2,418
Idaho - Madison Co.	270	973	175	95	200	137	55	11	700	1,216
Illinois - ten counties	456	2/2,350	648	2/2,174	1,198	2/3,292	579	2/ 1,231	2,881	2/9,047
Kansas - Stafford Co. 5/	48	89	9	45	29	6	4	5	90	145
Massachusetts - Worcester Co. 5/	45	222	8	29	11	73	(No report)		64	324
Mississippi - Clay Hills area 3/	10,600	16,820	15,900	39,486	18,550	42,371	7,950	4,941	53,000	103,618
New Jersey - Gloucester Co.	740	1,765	220	277	340	388	475	876	1,775	3,306
North Carolina - all areas 3/5/	172	907	370	902	354	675	377	373	1,273	2,857
North Dakota - Ward Co. 5/	50	609	9	50	25	177	14	104	98	940
Oklahoma - Okfuskee Co.	338	4,710	902	5,435	817	1,839	600	616	2,657	12,600
- Jackson Co.	668	3,433	708	2,241	433	731	157	173	1,966	6,578
Pennsylvania - Lancaster Co.	4,327	-6,844	1,050	962	1,545	2,093	865	-178	7,787	-3,967
South Carolina - Edgefield Co.	926	-1,580	332	53	402	-169	88	37	1,748	-1,659
South Dakota - Haakon Co.	201	1,047	107	431	118	450	174	409	600	2,337
Tennessee - Jefferson Co.	229	1,221	476	1,858	814	230	605	92	2,124	3,401
Texas - Northeast Sandy Land 5/	23	367	13	56	21	25	13	- 6	70	442
Utah - Cache Co.	672	2,083	472	1,026	485	738	271	239	1,900	4,086
Vermont - Franklin Co.	1,065	3,784	225	461	240	858	270	112	1,800	5,215
Virginia - Pulaski Co. 5/	4/ 74	298	4/ 49	52	4/ 105	24	4/ 67	1	4/ 295	375
Washington - Lewis Co.	480	-1,121	495	- 341	660	-274	1,545	-99	3,180	-1,835
- Columbia Co.	207	1,095	254	330	160	100	131	-22	752	1,503
West Virginia - Upshur Co.	409	744	523	583	259	582	1,214	510	2,205	2,419

1/ Sugar beets not included.
2/ Change to 1943 which is assumed to be maximum.
3/ Cotton not included.
4/ As of 1940.
5/ Sample farms only.

Another method of approximating the part of increased production that would come from the different groups would be to examine the distribution of the production increases for the various sample-area studies and summarize them in a way that would permit a general conclusion to be drawn. One method would be to make an array for each group of farms of the results from the different studies, giving each of them equal weight. If this is done, and if 25 percent of the cases at either end of the array are disregarded in order to secure an idea of the central tendency, it appears that, for the remaining half of the sample areas, from 37 to 65 percent of the increase would come from relatively large farms, 13 to 26 percent from the medium-sized farms, 11 to 19 percent from small, and 2 to 13 percent from very small farms.

These results are apparently rather consistent, for the relatively large and very small farms, with the estimates arrived at by the first method and reasonably so for the intermediate groups; and they indicate the rather wide variation that might be expected in the contribution to increased production from the different groups in different parts of the country.

Extent to Which Maximum Production Reduces "Underemployment"

In the discussion of manpower it was shown that the effectiveness of labor in the groups of smaller farms was very low in nearly all areas. This was so even when allowance was made for the relatively small size of the average family labor force in these groups, for the higher proportion of operators who were older or physically incapacitated, and the greater amount of time spent in work off the farm.

The suggested adjustments in production in the different groups, that will result in maximum total wartime production for each area, should if properly guided, bring the utilization of manpower on farms in Group II up to a reasonable standard, although in terms of war units per man equivalent it will be considerably below the average on Group I farms.

For the smaller farms the suggested adjustments in production do not materially improve the utilization of manpower. For example, in Lancaster County, Penn., assuming no change in the number of man equivalents per farm since 1942, the average number of war units per man equivalent on Group III farms would be increased from the 9 units handled in 1942 to 10 war units. For Group IV farms, the adjustment involves a decrease from $5\frac{1}{2}$ war units to 5, chiefly because of reductions in the broiler enterprise. It is possible that the labor force might also be reduced, but in 1942 it represented, 7/ including women and children, only 1.3 man equivalents per farm on farms in Group III and 0.6 man equivalent on those in Group IV. Other areas, although generally showing a slight increase in war units per farm for the smallest farms, do not deviate far from the scale of adjustments shown for Lancaster County.

The study for Seward County, Nebr., indicates for one area the type of adjustment that would be required to bring labor requirements into balance with the family labor supply on small farms (table 11).

7/ Excluding time spent in work off the farm.

It should be noted that for 29 percent of such farms the labor supply is already in balance with the limited resources of the farms. Twenty-three percent of the farms need more land, or land in combination with some other factors; 36 percent can be brought into balance with additional livestock alone. It is not expected that these adjustments can be made and maximum total production for the area reached at the same time. It is stated that there is not sufficient land available to balance the units that need land. With respect to livestock, the report concludes: "Without doubt the numbers of livestock that would be needed to balance labor requirements with the available supply on individual farms is greater than will be achieved." This appears to be due to such limitations as lack of feed, equipment, and managerial ability.

Table 11.- Number of farms on which labor requirements can be brought into balance with the family labor supply, selected townships of Seward County, Nebr., 1943

Type of adjustment	Number of farms that could be adjusted			
	Group II	Group III	Group IV	Total small farms
Additional land	4	2	2	8
Additional land and work off farm	1	-	-	1
Additional land and livestock	7	21	7	35
Additional land and livestock and work off farm	3	3	1	7
Rent out or give up land	-	3	1	4
Additional livestock	53	25	2	80
Additional livestock and work off farm	9	2	1	12
Work off farm	3	3	4	10
Labor and requirements balanced	43	17	5	65
Total farms	123	76	23	222

These adjustments therefore do not represent what can be done within the framework of maximum capacity production for the area. They do illustrate the changes that would have to be made to eliminate "underemployment." For most of the smaller farms in this area, and it is undoubtedly true of many others, the adjustment needed is either intensification through more livestock and purchased feed, or more livestock and more land.

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